CLAIMS

1. A transmitting apparatus comprising:

region determining means of comparing each block of a predetermined frame of a video signal consisting of frames zone-divided into a predetermined number of blocks with each block corresponding to the block within an immediately preceding frame of said predetermined frame, and thereby determining a rectangular region including a region having a different pixel value;

extracting means of extracting a video signal included in (1) the determined rectangular region or (2) a rectangular region obtained from the determined rectangular region by applying a predetermined rule; and

output means of outputting the video signal extracted by said extracting means.

2. A transmitting apparatus comprising:

region determining means of comparing each block of a predetermined even number field or odd number field of a video signal consisting of even number fields and odd number fields zone-divided into a predetermined number of blocks with each block corresponding to the block within an immediately preceding even number field or odd number field of said predetermined even number field or odd number

field, and thereby determining a rectangular region including a region having a different pixel value;

extracting means of extracting a video signal included in (1) the determined rectangular region or (2) a rectangular region obtained from the determined rectangular region by applying a predetermined rule; and

output means of outputting the video signal extracted by said extracting means.

3. A transmitting apparatus according to claim 1 or 2, wherein said predetermined rule is that when each of said predetermined blocks adjacent in a horizontal or vertical direction has a rectangular region determined by said region determining means, a rectangular region is generated that includes both of the rectangular regions of said predetermined blocks adjacent in a horizontal or vertical direction.

4. A transmitting apparatus according to claim 3, wherein said region that includes both of the rectangular regions of said predetermined blocks adjacent in a horizontal or vertical direction indicates a minimum rectangular region that includes both of said rectangular regions of said predetermined blocks adjacent in a horizontal or vertical direction.

5. A transmitting apparatus according to claim 1 or 2, wherein said predetermined rule is that when each of said predetermined blocks adjacent in a horizontal or vertical direction has a rectangular region determined by said region determining means and when these rectangular regions contact with each other in a horizontal or vertical direction, a rectangular region is generated that includes both of the rectangular regions of said predetermined blocks adjacent in a horizontal or vertical direction.

6. A transmitting apparatus according to claim 5, wherein said rectangular region that includes both of the rectangular regions of said predetermined blocks adjacent in a horizontal or vertical direction indicates a minimum rectangular region that includes both of said rectangular regions of said predetermined blocks adjacent in a horizontal or vertical direction.

7. A transmitting apparatus according to claim 1 or 2, wherein said extracting means has coding means of coding said extracted video signal.

8. A transmitting apparatus according to claim 1 or 2, wherein said predetermined blocks are constructed by

zone dividing in a direction perpendicular to a direction of scanning performed when a receiving apparatus of receiving said transmitted video signal displays the video signal.

9. A transmitting apparatus according to claim 1 or 2, wherein a size of each said predetermined block is changed depending on a screen resolution of said video signal generating apparatus.

10. A transmitting apparatus according to claim 1 or 2, wherein said video signal generating apparatus is a personal computer.

11. An image processing system comprising:

a video signal generating apparatus of generating a video signal consisting of frames zone-divided into a predetermined number of blocks;

a transmitting apparatus having: region determining means of comparing each block of a predetermined frame of the video signal generated by said video signal generating apparatus with each block corresponding to the block within an immediately preceding frame of said predetermined frame, and thereby determining a rectangular region including a region having a different pixel value; extracting means

of extracting a video signal included in (1) the determined rectangular region or (2) a rectangular region obtained from the determined rectangular region by applying a predetermined rule; and transmitting means of transmitting the video signal extracted by said extracting means; and

a receiving apparatus having output means of outputting the video signal transmitted from said transmitting apparatus.

12. An image processing system comprising:

a video signal generating apparatus of generating a video signal consisting of even number fields and odd number fields zone-divided into a predetermined number of blocks;

a transmitting apparatus having: region determining means of comparing each block of a predetermined even number field or odd number field of the video signal generated by said video signal generating apparatus with each block corresponding to the block within an immediately preceding even number field or odd number field of said predetermined even number field or odd number field, and thereby determining a rectangular region including a region having a different pixel value; extracting means of extracting a video signal included in (1) the determined rectangular region or (2) a rectangular region obtained from the determined rectangular region by applying a predetermined

rule; and transmitting means of transmitting the video signal extracted by said extracting means; and

a receiving apparatus having output means of outputting the video signal transmitted from said transmitting apparatus.

13. An image processing system according to claim 11 or 12, wherein:

said extracting means has coding means of coding said extracted video signal;

said transmitting means transmits said coded video signal;

said receiving apparatus has decoding means of decoding the coded video signal transmitted from said transmitting apparatus, according to a method corresponding to a coding method of said coding means; and

said output means outputs the video signal decoded by said decoding means.

14. An image processing system according to claim 13, wherein said decoding means and said output means operate simultaneously.

15. An image processing system according to claim 11 or 12, wherein:

said transmitting apparatus serves also as said video signal generating apparatus;

said video signal generating apparatus and said transmitting apparatus are a personal computer; and

said receiving apparatus is a liquid crystal display projector.

16. An image processing system according to claim 11 or 12, wherein:

said transmitting apparatus serves also as said video signal generating apparatus; and

said video signal generating apparatus and said transmitting apparatus are a personal computer, while said receiving apparatus is a DLP projector provided with a network function.

17. An image processing method comprising:

a region determining step of comparing each block of a predetermined frame of a video signal consisting of frames zone-divided into a predetermined number of blocks with each block corresponding to the block within an immediately preceding frame of said predetermined frame, and thereby determining a rectangular region including a region having a different pixel value;

an extracting step of extracting a video signal

included in (1) the determined rectangular region or (2) a rectangular region obtained from the determined rectangular region by applying a predetermined rule; and

an output step of outputting the video signal extracted at said extracting step.

18. An image processing method comprising:

a region determining step of comparing each block of a predetermined even number field or odd number field of a video signal consisting of even number fields and odd number fields zone-divided into a predetermined number of blocks with each block corresponding to the block within an immediately preceding even number field or odd number field of said predetermined even number field or odd number field, and thereby determining a rectangular region including a region having a different pixel value;

an extracting step of extracting a video signal included in (1) the determined rectangular region or (2) a rectangular region obtained from the determined rectangular region by applying a predetermined rule; and

an output step of outputting the video signal extracted at said extracting step.

19. A program of causing a computer to serve, in a transmitting apparatus according to claim 1, as:

region determining means of comparing each block of a predetermined frame of a video signal consisting of frames zone-divided into a predetermined number of blocks with each block corresponding to the block within an immediately preceding frame of said predetermined frame, and thereby determining a rectangular region including a region having a different pixel value; and

extracting means of extracting a video signal included in (1) the determined rectangular region or (2) a rectangular region obtained from the determined rectangular region by applying a predetermined rule.

20. A program of causing a computer to serve, in a transmitting apparatus according to claim 2, as:

region determining means of comparing each block of a predetermined even number field or odd number field of a video signal consisting of even number fields and odd number fields zone-divided into a predetermined number of blocks with each block corresponding to the block within an immediately preceding even number field or odd number field of said predetermined even number field or odd number field, and thereby determining a rectangular region including a region having a different pixel value; and

extracting means of extracting a video signal included in (1) the determined rectangular region or (2) a rectangular

region obtained from the determined rectangular region by applying a predetermined rule.

21. A computer-processible recording medium which carries a program according to claim 19 or 20.